

SEQUENCE LISTING

<110> Eric H. Holmes et al.

<120> NUCLEIC ACIDS AND PROTEINS OF A RAT GANGLIOSIDE
GM1-SPECIFIC ALPHA1-2 FUCOSYLTRANSFERASE AND USES
THEREOF

<130> 8511-029

<140>

<141> 1999-04-23

<160> 29

<170> PatentIn Ver. 2.0

<210> 1

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer

<400> 1

ggcccgcttg ggaaccagat gg

22

<210> 2

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer

<400> 2

ggttacactg cgtgagcagc gc

22

<210> 3

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer

<400> 3

ttcccatcag aaggctttc ctgc

24

<210> 4

<211> 17

<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 4
ccgcctccac catcttc

17

<210> 5
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 5
atgaattccc tccagcagcg aata

24

<210> 6
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 6
gccatggcca gcgcgcaggt tcct

24

<210> 7
<211> 1149
<212> DNA
<213> Rattus norvegicus

<220>
<221> CDS
<222> (1)..(1143)

<400> 7
atg gcc agc gcc cag gtt cct ttc tcc ttt cct ctg gcc cac ttc ctc 48
Met Ala Ser Ala Gln Val Pro Phe Ser Phe Pro Leu Ala His Phe Leu
1 5 10 15

atc ttt gtc ttc gtg act tcc acc atc atc cac ctc cag cag cga ata 96
Ile Phe Val Phe Val Thr Ser Thr Ile Ile His Leu Gln Gln Arg Ile
20 25 30

gtg aag ctc caa ccc ctg tca gag aag gaa tta ccg atg acg act caa 144
Val Lys Leu Gln Pro Leu Ser Glu Lys Glu Leu Pro Met Thr Thr Gln
35 40 45

atg tcc tog gga aac aca gaa agc cca gag atg cga cgg gac agc gag 192
Met Ser Ser Gly Asn Thr Glu Ser Pro Glu Met Arg Arg Asp Ser Glu
50 55 60

cag cat ggg aat gga gag ctg cgg ggc atg ttc acg atc aat tcc att	240
Gln His Gly Asn Gly Glu Leu Arg Gly Met Phe Thr Ile Asn Ser Ile	
65 70 75 80	
ggc cgg ctg ggg aac cag atg ggc gaa tac gcc aca ctc ttt gca ctg	288
Gly Arg Leu Gly Asn Gln Met Gly Glu Tyr Ala Thr Leu Phe Ala Leu	
85 90 95	
gcc agg atg aac gga cgg ctt gcg ttc atc ccc gca tcc atg cac aac	336
Ala Arg Met Asn Gly Arg Leu Ala Phe Ile Pro Ala Ser Met His Asn	
100 105 110	
gct cta gcg ccc atc ttc agg atc agc ctc cgg gtg tta cac agc gac	384
Ala Leu Ala Pro Ile Phe Arg Ile Ser Leu Pro Val Leu His Ser Asp	
115 120 125	
acg gcc aaa aag atc cca tgg cag aat tac cat ctc aac gac tgg atg	432
Thr Ala Lys Lys Ile Pro Trp Gln Asn Tyr His Leu Asn Asp Trp Met	
130 135 140	
gag gag cgt tac cgc cac att ccg gga cac ttt gtg cgc ttc acg gga	480
Glu Glu Arg Tyr Arg His Ile Pro Gly His Phe Val Arg Phe Thr Gly	
145 150 155 160	
tac ccg tgc tcc tgg acc ttc tac cac cac ctg cgc cca gag atc ctg	528
Tyr Pro Cys Ser Trp Thr Phe Tyr His His Leu Arg Pro Glu Ile Leu	
165 170 175	
aag gag ttc acc ctg cat gac cac gtg cgg gag gag gcc cag gcc ttc	576
Lys Glu Phe Thr Leu His Asp His Val Arg Glu Glu Ala Gln Ala Phe	
180 185 190	
ctg cgt ggt ctg cgg gtg aat ggg agc cag ccc agt act ttt gtg ggt	624
Leu Arg Gly Leu Arg Val Asn Gly Ser Gln Pro Ser Thr Phe Val Gly	
195 200 205	
gtc cat gtg cgc cga ggg gac tat gtg cat gtc atg cct aat gtg tgg	672
Val His Val Arg Arg Gly Asp Tyr Val His Val Met Pro Asn Val Trp	
210 215 220	
aag ggc gtg gtg gct gac cgg ggt tac ctg gaa aag gcc ctg gat atg	720
Lys Gly Val Val Ala Asp Arg Gly Tyr Leu Glu Lys Ala Leu Asp Met	
225 230 235 240	
ttc cgg gca cgc tat tca tct cca gtc ttc gtg gtt aca aac agc aac ggt	768
Phe Arg Ala Arg Tyr Ser Ser Pro Val Phe Val Val Thr Ser Asn Gly	
245 250 255	
atg gcc tgg tgc cgg gag aac att aat gct tcc cga gga gac gtg gtg	816
Met Ala Trp Cys Arg Glu Asn Ile Asn Ala Ser Arg Gly Asp Val Val	
260 265 270	
ttc gcg ggc aat ggt att gag ggg tcg cca gcc aag gac ttc gcg ctg	864
Phe Ala Gly Asn Gly Ile Glu Gly Ser Pro Ala Lys Asp Phe Ala Leu	
275 280 285	

ctc acc cag tgc aac cac acc atc atg act att ggg acc ttt ggg att 912
 Leu Thr Gln Cys Asn His Thr Ile Met Thr Ile Gly Thr Phe Gly Ile
 290 295 300

tgg gct gcc tac ctg gca ggt ggt gat acc atc tac tta gcc aac tac 960
 Trp Ala Ala Tyr Leu Ala Gly Gly Asp Thr Ile Tyr Leu Ala Asn Tyr
 305 310 315 320

acc ctt ccg gat tct ccg ttc ctc aaa gtc ttt aag cca gag gca gcc 1008
 Thr Leu Pro Asp Ser Pro Phe Leu Lys Val Phe Lys Pro Glu Ala Ala
 325 330 335

ttc cta ccc gaa tgg gtg ggc atc cct gcc gat ctg tcc cca ctc ctt 1056
 Phe Leu Pro Glu Trp Val Gly Ile Pro Ala Asp Leu Ser Pro Leu Leu
 340 345 350

aag gca tta aca cca gcc tgt cct cgg tcc cac ttc cac ctc aag gca 1104
 Lys Ala Leu Thr Pro Ala Cys Pro Arg Ser His Phe His Leu Lys Ala
 355 360 365

aaa gga gtc act tgt tac gtc gca gga aga gcc ttc tga tggaa 1149
 Lys Gly Val Thr Cys Tyr Val Ala Gly Arg Ala Phe
 370 375 380

<210> 8
 <211> 380
 <212> PRT
 <213> Rattus norvegicus

<400> 8
 Met Ala Ser Ala Gln Val Pro Phe Ser Phe Pro Leu Ala His Phe Leu
 1 5 10 15

Ile Phe Val Phe Val Thr Ser Thr Ile Ile His Leu Gln Gln Arg Ile
 20 25 30

Val Lys Leu Gln Pro Leu Ser Glu Lys Glu Leu Pro Met Thr Thr Gln
 35 40 45

Met Ser Ser Gly Asn Thr Glu Ser Pro Glu Met Arg Arg Asp Ser Glu
 50 55 60

Gln His Gly Asn Gly Glu Leu Arg Gly Met Phe Thr Ile Asn Ser Ile
 65 70 75 80

Gly Arg Leu Gly Asn Gln Met Gly Glu Tyr Ala Thr Leu Phe Ala Leu
 85 90 95

Ala Arg Met Asn Gly Arg Leu Ala Phe Ile Pro Ala Ser Met His Asn
 100 105 110

Ala Leu Ala Pro Ile Phe Arg Ile Ser Leu Pro Val Leu His Ser Asp
 115 120 125

Thr Ala Lys Lys Ile Pro Trp Gln Asn Tyr His Leu Asn Asp Trp Met
 130 135 140

Glu Glu Arg Tyr Arg His Ile Pro Gly His Phe Val Arg Phe Thr Gly
 145 150 155 160
 Tyr Pro Cys Ser Trp Thr Phe Tyr His His Leu Arg Pro Glu Ile Leu
 165 170 175
 Lys Glu Phe Thr Leu His Asp His Val Arg Glu Glu Ala Gln Ala Phe
 180 185 190
 Leu Arg Gly Leu Arg Val Asn Gly Ser Gln Pro Ser Thr Phe Val Gly
 195 200 205
 Val His Val Arg Arg Gly Asp Tyr Val His Val Met Pro Asn Val Trp
 210 215 220
 Lys Gly Val Val Ala Asp Arg Gly Tyr Leu Glu Lys Ala Leu Asp Met
 225 230 235 240
 Phe Arg Ala Arg Tyr Ser Ser Pro Val Phe Val Val Thr Ser Asn Gly
 245 250 255
 Met Ala Trp Cys Arg Glu Asn Ile Asn Ala Ser Arg Gly Asp Val Val
 260 265 270
 Phe Ala Gly Asn Gly Ile Glu Gly Ser Pro Ala Lys Asp Phe Ala Leu
 275 280 285
 Leu Thr Gln Cys Asn His Thr Ile Met Thr Ile Gly Thr Phe Gly Ile
 290 295 300
 Trp Ala Ala Tyr Leu Ala Gly Asp Thr Ile Tyr Leu Ala Asn Tyr
 305 310 315 320
 Thr Leu Pro Asp Ser Pro Phe Leu Lys Val Phe Lys Pro Glu Ala Ala
 325 330 335
 Phe Leu Pro Glu Trp Val Gly Ile Pro Ala Asp Leu Ser Pro Leu Leu
 340 345 350
 Lys Ala Leu Thr Pro Ala Cys Pro Arg Ser His Phe His Leu Lys Ala
 355 360 365
 Lys Gly Val Thr Cys Tyr Val Ala Gly Arg Ala Phe
 370 375 380

<210> 9
 <211> 1068
 <212> DNA
 <213> Rattus norvegicus

<220>
 <221> CDS
 <222> (1)..(1062)

<400> 9

ctc cag cag cga ata gtg aag ctc caa ccc ctg tca gag aag gaa tta	48
Leu Gln Gln Arg Ile Val Lys Leu Gln Pro Leu Ser Glu Lys Glu Leu	
1 5 10 15	
ccg atg acg actcaa atg tcc tcg gga aac aca gaa agc cca gag atg	96
Pro Met Thr Thr Gln Met Ser Ser Gly Asn Thr Glu Ser Pro Glu Met	
20 25 30	
cga cgg gac agc gag cag cat ggg aat gga gag ctg cgg ggc atg ttc	144
Arg Arg Asp Ser Glu Gln His Gly Asn Gly Glu Leu Arg Gly Met Phe	
35 40 45	
acg atc aat tcc att ggc cgg ctg ggg aac cag atg ggc gaa tac gcc	192
Thr Ile Asn Ser Ile Gly Arg Leu Gly Asn Gln Met Gly Glu Tyr Ala	
50 55 60	
aca ctc ttt gca ctg gcc agg atg aac gga cgg ctt gcg ttc atc ccc	240
Thr Leu Phe Ala Leu Ala Arg Met Asn Gly Arg Leu Ala Phe Ile Pro	
65 70 75 80	
gca tcc atg cac aac gct cta gcg ccc atc ttc agg atc agc ctc ccg	288
Ala Ser Met His Asn Ala Leu Ala Pro Ile Phe Arg Ile Ser Leu Pro	
85 90 95	
gtg tta cac agc gac acg gcc aaa aag atc cca tgg cag aat tac cat	336
Val Leu His Ser Asp Thr Ala Lys Lys Ile Pro Trp Gln Asn Tyr His	
100 105 110	
ctc aac gac tgg gag gag cgt tac cgc cac att ccg gga cac ttt	384
Leu Asn Asp Trp Met Glu Glu Arg Tyr Arg His Ile Pro Gly His Phe	
115 120 125	
gtg cgc ttc acg gga tac ccg tgc tcc tgg acc ttc tac cac cac ctg	432
Val Arg Phe Thr Gly Tyr Pro Cys Ser Trp Thr Phe Tyr His His Leu	
130 135 140	
cgc cca gag atc ctg aag gag ttc acc ctg cat gac cac gtg cgg gag	480
Arg Pro Glu Ile Leu Lys Glu Phe Thr Leu His Asp His Val Arg Glu	
145 150 155 160	
gag gcc cag gcc ttc ctg cgt ggt ctg cgg gtg aat ggg agc cag ccg	528
Glu Ala Gln Ala Phe Leu Arg Gly Leu Arg Val Asn Gly Ser Gln Pro	
165 170 175	
agt act ttt gtg ggt gtc cat gtg cgc cga ggg gac tat gtg cat gtc	576
Ser Thr Phe Val Gly Val His Val Arg Arg Gly Asp Tyr Val His Val	
180 185 190	
atg cct aat gtg tgg aag ggc gtg gtg gct gac cgg ggt tac ctg gaa	624
Met Pro Asn Val Trp Lys Gly Val Val Ala Asp Arg Gly Tyr Leu Glu	
195 200 205	
aag gcc ctg gat atg ttc cgg gca cgc tat tca tct cca gtc ttc gtg	672
Lys Ala Leu Asp Met Phe Arg Ala Arg Tyr Ser Ser Pro Val Phe Val	
210 215 220	

gtt aca agc aac ggt atg gcc tgg tgc cgg gag aac att aat gct tcc 720
 Val Thr Ser Asn Gly Met Ala Trp Cys Arg Glu Asn Ile Asn Ala Ser
 225 230 235 240

 cga gga gac gtg gtg ttc ggc aat ggt att gag ggg tcg cca gcc 768
 Arg Gly Asp Val Val Phe Ala Gly Asn Gly Ile Glu Gly Ser Pro Ala
 245 250 255

 aag gac ttc gcg ctg ctc acc cag tgc aac cac acc atc atg act att 816
 Lys Asp Phe Ala Leu Leu Thr Gln Cys Asn His Thr Ile Met Thr Ile
 260 265 270

 ggg acc ttt ggg att tgg gct gcc tac ctg gca ggt ggt gat acc atc 864
 Gly Thr Phe Gly Ile Trp Ala Ala Tyr Leu Ala Gly Gly Asp Thr Ile
 275 280 285

 tac tta gcc aac tac acc ctt ccg gat tct ccg ttc ctc aaa gtc ttt 912
 Tyr Leu Ala Asn Tyr Thr Leu Pro Asp Ser Pro Phe Leu Lys Val Phe
 290 295 300

 aag cca gag gca gcc ttc cta ccc gaa tgg gtg ggc atc cct gcc gat 960
 Lys Pro Glu Ala Ala Phe Leu Pro Glu Trp Val Gly Ile Pro Ala Asp
 305 310 315 320

 ctg tcc cca ctc ctt aag gca tta aca cca gcc tgt cct cgg tcc cac 1008
 Leu Ser Pro Leu Leu Lys Ala Leu Thr Pro Ala Cys Pro Arg Ser His
 325 330 335

 ttc cac ctc aag gca aaa gga gtc act tgt tac gtc gca gga aga gcc 1056
 Phe His Leu Lys Ala Lys Gly Val Thr Cys Tyr Val Ala Gly Arg Ala
 340 345 350

 ttc tga tggaa 1068
 Phe

<210> 10
 <211> 353
 <212> PRT
 <213> Rattus norvegicus

<400> 10
 Leu Gln Gln Arg Ile Val Lys Leu Gln Pro Leu Ser Glu Lys Glu Leu
 1 5 10 15

Pro Met Thr Thr Gln Met Ser Ser Gly Asn Thr Glu Ser Pro Glu Met
 20 25 30

Arg Arg Asp Ser Glu Gln His Gly Asn Gly Glu Leu Arg Gly Met Phe
 35 40 45

Thr Ile Asn Ser Ile Gly Arg Leu Gly Asn Gln Met Gly Glu Tyr Ala
 50 55 60

Thr Leu Phe Ala Leu Ala Arg Met Asn Gly Arg Leu Ala Phe Ile Pro
 65 70 75 80

Ala Ser Met His Asn Ala Leu Ala Pro Ile Phe Arg Ile Ser Leu Pro
 85 90 95
 Val Leu His Ser Asp Thr Ala Lys Lys Ile Pro Trp Gln Asn Tyr His
 100 105 110
 Leu Asn Asp Trp Met Glu Glu Arg Tyr Arg His Ile Pro Gly His Phe
 115 120 125
 Val Arg Phe Thr Gly Tyr Pro Cys Ser Trp Thr Phe Tyr His His Leu
 130 135 140
 Arg Pro Glu Ile Leu Lys Glu Phe Thr Leu His Asp His Val Arg Glu
 145 150 155 160
 Glu Ala Gln Ala Phe Leu Arg Gly Leu Arg Val Asn Gly Ser Gln Pro
 165 170 175
 Ser Thr Phe Val Gly Val His Val Arg Arg Gly Asp Tyr Val His Val
 180 185 190
 Met Pro Asn Val Trp Lys Gly Val Val Ala Asp Arg Gly Tyr Leu Glu
 195 200 205
 Lys Ala Leu Asp Met Phe Arg Ala Arg Tyr Ser Ser Pro Val Phe Val
 210 215 220
 Val Thr Ser Asn Gly Met Ala Trp Cys Arg Glu Asn Ile Asn Ala Ser
 225 230 235 240
 Arg Gly Asp Val Val Phe Ala Gly Asn Gly Ile Glu Gly Ser Pro Ala
 245 250 255
 Lys Asp Phe Ala Leu Leu Thr Gln Cys Asn His Thr Ile Met Thr Ile
 260 265 270
 Gly Thr Phe Gly Ile Trp Ala Ala Tyr Leu Ala Gly Gly Asp Thr Ile
 275 280 285
 Tyr Leu Ala Asn Tyr Thr Leu Pro Asp Ser Pro Phe Leu Lys Val Phe
 290 295 300
 Lys Pro Glu Ala Ala Phe Leu Pro Glu Trp Val Gly Ile Pro Ala Asp
 305 310 315 320
 Leu Ser Pro Leu Leu Lys Ala Leu Thr Pro Ala Cys Pro Arg Ser His
 325 330 335
 Phe His Leu Lys Ala Lys Gly Val Thr Cys Tyr Val Ala Gly Arg Ala
 340 345 350
 Phe

<210> 11
 <211> 344
 <212> PRT
 <213> Homo sapiens

<400> 11
 Met Leu Val Val Gln Met Pro Phe Ser Phe Pro Met Ala His Phe Ile
 1 5 10 15
 Leu Phe Val Phe Thr Val Ser Thr Ile Phe His Val Gln Gln Arg Leu
 20 25 30
 Ala Lys Ile Gln Ala Met Trp Glu Leu Pro Val Gln Ile Pro Val Leu
 35 40 45
 Ala Ser Thr Ser Lys Ala Leu Gly Pro Ser Gln Leu Arg Gly Met Trp
 50 55 60
 Thr Ile Asn Ala Ile Gly Arg Leu Gly Asn Gln Met Gly Glu Tyr Ala
 65 70 75 80
 Thr Leu Tyr Ala Leu Ala Lys Met Asn Gly Arg Pro Ala Phe Ile Pro
 85 90 95
 Ala Gln Met His Ser Thr Leu Ala Pro Ile Phe Arg Ile Thr Leu Pro
 100 105 110
 Val Leu His Ser Ala Thr Ala Ser Arg Ile Pro Trp Gln Asn Tyr His
 115 120 125
 Leu Asn Asp Trp Met Glu Glu Glu Tyr Arg His Ile Pro Pro Gly Glu
 130 135 140
 Tyr Val Arg Phe Thr Gly Tyr Pro Cys Ser Trp Thr Phe Tyr His His
 145 150 155 160
 Leu Arg Gln Glu Ile Leu Gln Glu Phe Thr Leu His Asp His Val Arg
 165 170 175
 Glu Glu Ala Gln Lys Phe Leu Arg Gly Leu Gln Val Asn Gly Ser Arg
 180 185 190
 Pro Gly Thr Phe Val Gly Val His Val Arg Arg Gly Asp Tyr Val His
 195 200 205
 Val Met Pro Lys Val Trp Lys Gly Val Val Ala Asp Arg Arg Tyr Leu
 210 215 220
 Gln Gln Ala Leu Asp Trp Phe Arg Ala Arg Tyr Ser Ser Leu Ile Phe
 225 230 235 240
 Val Val Thr Ser Asn Gly Met Ala Trp Cys Arg Glu Asn Ile Asp Thr
 245 250 255
 Ser His Gly Asp Val Val Phe Ala Gly Asp Gly Ile Glu Gly Ser Pro
 260 265 270
 Ala Lys Asp Phe Ala Leu Leu Thr Gln Cys Asn His Thr Ile Met Thr
 275 280 285
 Ile Gly Thr Phe Gly Ile Trp Ala Ala Tyr Leu Thr Gly Gly Asp Thr
 290 295 300

Ile Tyr Leu Ala Asn Tyr Thr Leu Pro Asp Ser Pro Phe Leu Lys Ile
305 310 315 320

Phe Lys Pro Glu Ala Ala Phe Leu Pro Glu Trp Thr Gly Ile Ala Ala
325 330 335

Asp Leu Ser Pro Leu Leu Lys His
340

<210> 12

<211> 100

<212> DNA

<213> Homo sapiens

<400> 12

tgtccctctct gtaatcttct tcctccatat ccatcaagac agcttccac atggcctagg 60

cctgtcgatc ctgtgtcaag accggccgcct ggtgacaccc 100

<210> 13

<211> 50

<212> DNA

<213> Homo sapiens

<400> 13

accccaatgg ccggtttgggt aatcagatgg gacagtatgc cacgctgctg

50

<210> 14

<211> 100

<212> DNA

<213> Homo sapiens

<400> 14

atggacacgga ggctacacccg tggaaagact ttgccctgct cacacagtgc aaccacacca 60

ttatgaccat tggcaccttc ggcttctggg ctgcctaccc 100

<210> 15

<211> 100

<212> DNA

<213> Homo sapiens

<400> 15

catgtggtc gttcagatgc ctttctcttt tcccatggcc cacttcatcc tctttgtctt 60

tacggtttcc actatatttc acgttcagca gcggctagcg 100

<210> 16

<211> 50

<212> DNA

<213> Homo sapiens

<400> 16

atgcaatagg ccgcctgggg aaccagatgg gcgagtagc cacaactgtac 50

<210> 17
<211> 100
<212> DNA
<213> Homo sapiens

<400> 17
atggacagga ggctacacccg tggaaagact ttgcctgtc cacacagtgc aaccacacca 60
ttatgaccat tggcacatcc ggcattctggg ctgcctaccc 100

<210> 18
<211> 94
<212> DNA
<213> Homo sapiens

<400> 18
ccccacagcc gtcaaggat tctggccac ccgccttcc ttctccaccc tctacttgt 60
ctttgccatt tttgtggtgt ccaccatctt tcac 94

<210> 19
<211> 50
<212> DNA
<213> Homo sapiens

<400> 19
actccaaggg ccgcctgggg aaccagatgg gcgagtagc cacaactgtac 50

<210> 20
<211> 100
<212> DNA
<213> Homo sapiens

<400> 20
atggccttca gggctcaccc gccaaggact tccactgtc cacacagtgc aaccacacca 60
tcatcacccgt gggcacatcc ggggtctggg ccgcgtaccc 100

<210> 21
<211> 100
<212> DNA
<213> Oryctolagus cuniculus

<400> 21
tgccctctct gccttctctt tcctctgtca tctccacccaa gacctctccc gaaacggct 60
agccctgtct ctccctgttc tggaacgcca gccgggtgcca 100

<210> 22
<211> 50

<212> DNA

<213> Oryctolagus cuniculus

<400> 22

acccggatgg ccgtttggg aaccagatgg ggcagtacgc cactctgctc

50

<210> 23

<211> 100

<212> DNA

<213> Oryctolagus cuniculus

<400> 23

acggcctcga gagctcgccg gccaaaggact ttgcgtgtgt cacgcagtgt aaccacaccc 60

tcatgaccat cggcaccttt ggcttctggg ccgcctaccc

100

<210> 24

<211> 94

<212> DNA

<213> Oryctolagus cuniculus

<400> 24

tcccacagcc accaggagat tgagggccac ccacccgtcc gtctccacca tctacttcc 60

gttcaccatc tttgtggat ccactgtctt ccac

94

<210> 25

<211> 50

<212> DNA

<213> Oryctolagus cuniculus

<400> 25

acgcacatggg cccgcctgggg aaccagatgg ggcagtacgc caccgtgtac

50

<210> 26

<211> 100

<212> DNA

<213> Oryctolagus cuniculus

<400> 26

acggcctcga gggctctccg gccaaaggact ttgcgtgtgt cacgcagtgt aaccacaccc 60

tcatgaccat cggcaccttt ggcttctggg ccgcctaccc

100

<210> 27

<211> 79

<212> DNA

<213> Oryctolagus cuniculus

<400> 27

catggtccac gtcatcctct tctgtttcac cgcctccacc atcttccacc tccaggcagcg 60

cctgggtgagg attcaaccc

79

<210> 28
<211> 50
<212> DNA
<213> *Oryctolagus cuniculus*

<400> 28
acgc~~ccat~~ggg ccgc~~c~~ttgggg aacc~~agat~~gg g~~c~~gagtacgc c~~a~~c~~g~~c~~t~~gtat

50

<210> 29
<211> 100
<212> DNA
<213> *Oryctolagus cuniculus*

<400> 29
atgg~~cctcg~~ga gag~~ctcgcc~~g gccaaggact ttgc~~cgct~~gtct cac~~gcag~~gtt aacc~~acac~~ccg 60
t~~cat~~gaccat cggcac~~ctt~~ gggat~~ct~~ggg ccgc~~c~~ttac~~c~~t

100